IN THE CLAIMS

Please add the following new claims:

37. **(New)**   A system for communicating traffic between elements in a telecommunications node, comprising:

a computer-readable medium; and

software stored on the computer-readable medium, the software operable to repeat a frame at a defined interval on a synchronous bus, to provide a plurality of service channels in each frame, to transmit in at least one frame traffic for a DS-0 connection in a single service channel, to transmit in the frame an asynchronous transfer mode (ATM) cell in a set of service channels, and to synchronously switch DS-0 traffic and ATM cells received in a frame.

38. **(New)**   The system of Claim 37, wherein the service channel is two bytes in size, the software operable to repeat the frame at 125 microsecond intervals.

39. **(New)**   The system of Claim 37, wherein the synchronous bus comprises a point-to-point link, the software further operable to repeat the frame at a defined interval on the point-to-point link.

40. **(New)**   The system of Claim 37, the software further operable to transmit in-band a current channel associated signaling (CAS) value for the DS-0 connection in the service channel for the DS-0 connection.

41. **(New)**   The system of Claim 37, the software further operable to transmit the ATM cell in a block of contiguous service channels.

42. **(New)** The system of Claim 37, the software further operable to transmit traffic for an integrated services digital network (ISDN) connection in a second set of service channels of the frame.

43. **(New)** A traffic processor for a line card of a telecommunications node, comprising:

a computer-readable medium; and

software stored on the computer-readable medium, the software operable to generate a frame comprising a plurality of service channels and an overhead portion having an internode communication channel in a service traffic portion to generate control traffic destined for a disparate element in the telecommunications node, to insert the control traffic into a slot in the internode communication channel associated with the disparate element, to insert traffic received at a port into the service channels, and to transmit the frame on a point-to-point link of a synchronous bus.

44. **(New)** The traffic processor of Claim 43, the software further operable to insert synchronous and asynchronous traffic into the service channels.

45. **(New)** The traffic processor of Claim 43, the software further operable to insert DS-0 traffic and a current channel associated signaling (CAS) value for the DS-0 traffic into a service channel.

46. **(New)** The traffic processor of Claim 43, the software further operable to insert an asynchronous transfer